UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/691,419	10/17/2000	Gordon MacKay	CISCP261	4308

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EXAMINER
HALIYUR, VENKATESH N

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		09/691,419	MACKAY ET AL.
		Examiner	Art Unit	
		Venkatesh Haliyur	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>10/17/2000</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>10/17/2000</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-21 are pending in the application.

Drawings

2.   New corrected drawings in compliance with 37 CFR 1.121(d) are required in this

application because the drawings (figures 1-8) are not legible and difficult to read.

Applicant is advised to employ the services of a competent patent draftsperson outside

the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings.

The corrected drawings are required in reply to the Office action to avoid abandonment

of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another

filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

patent by another filed in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

subsection of an application filed in the United States only if the international application designated the United States

and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-16, are rejected under 35 U.S.C. 102(e) as being anticipated by

Benedict et al [US Pat: 5,321,812].

Regarding claim 1, Benedict et al. in their invention of " Loop Detection and

Dissolution in a Focal Point Network" disclosed a method for reconfiguring a

communication system **(Fig 1)** comprising a plurality of nodes **(items 10,12,14,16,18,**

20,22,24,26,28,30 of Fig 1) coupled by a plurality of communication links **(items A, B,**

C, D, E, F, G of Fig 1) comprising, determining that said communication system

includes a closed loop topology in response to receipt of a communication at least a first

of said plurality of nodes **(Fig 5, col 6, lines 7-19)**, at least temporarily preventing

effective communication across a selected one of said plurality of communication links

to change said closed loop topology to an open topology **(Fig 6, col 6, lines 7-29) [Figs**

1-6, col 2,lines 39-68,col 3,1-68,col 4,lines 1-65,abstract].

Regarding claims 2,3,12, Benedict et al. disclosed designating one of said plurality

of nodes as a loop-breaking master **(focal point node or server node, items 10 of Fig**

1) in response to said step of determining, wherein said step of preventing is performed

in response to a control signal or communication output **(message)** by said loop-

breaking master and said first node is said loop-breaking master **[Figs 1,5,6 col 2, lines**

39-68,col 3, 1-68, col 4, lines 1-65, col 6, lines 1-29].

Regarding claim 4, Benedict et al. disclosed a method for reestablishing effective

communication over said selected one of said plurality of communication links in

response to detection of a link loss **[col 4, lines 44-65, col 6, lines 7-41]**.

Regarding claim 5, Benedict et al. disclosed a method for detecting loop topology

in a communication network **(Fig 1)** having a plurality of nodes **(items 10,12,14,16,18,**

20,22,24,26,28,30 of Fig 1) coupled by a plurality of links **(items A, B, C, D, E, F, G of**

Fig 1) wherein each of said plurality of nodes is associated with a determinable node

value **(address or ID, item 144 of Fig 7, col 6,lines 42-47, col 7,lines 4-22)**

comprising, sending at least a first communication from a first node **(item 50 of Fig 5)** to

at least a second node **(item 52 of Fig 5)**, said first communication **(message)**

including an indication of said node value of said first node, said second node receiving

said communication from said first node which includes a received node value and

comparing said received node value to a first node value which is the node value of said

second node, said second node outputting a signal indicative of a closed loop topology

when said received node value equals said first node value **[Figs 5-8, col 2,lines 39-**

67,col 3,1-68,col 4,lines 1-65,col 6, lines 7-68, col 7, lines 3-64,abstract].

Regarding claims 6,7, Benedict et al. disclosed that the second node **(NFP node**

or served node, item 54 of Fig 5) outputting a communication **(message)** which

includes said received node value **(address)** when said received node value is closer to

a predetermined node value than said first node value **(FP node or server node, item**

50 of Fig 5) [Figs 4,5, col 4, lines 1-68, col 5, lines 1-68, col 6, lines 1-47].

Regarding claims 8-10, Benedict et al. disclosed that the second node outputting a

communication **(message)** which includes said first node value when said first node

value is less than said received node value and also first node value is greater **(next**

node) than said received node value and said node values are node addresses **[Figs
4,5, col 4, lines 1-68, col 5, lines 1-68, col 6, lines 1-47]**.

Regarding claim 11, Benedict et al. disclosed that said nodes include network
(Ethernet) repeaters **(LU)** coupled to a control point **(switch)** in the network **[col 1,
lines 1-68, col 2, lines 1-35, col 4, lines 1-65]**.

Regarding claim 13, Benedict et al. disclosed the step of sending said first
communication **(message)** from said first node is performed in response to a change in
the number of nodes or links in the system **[col 1, lines 1-68, col 2, lines 1-35, col 4,
lines 1-65]**.

Regarding claims 14,15,19, Benedict et al. disclosed a method for avoiding node
isolation in a network communication system having a plurality of nodes **(items
10,12,14,16,18, 20,22,24,26,28,30 of Fig 1)** coupled by a plurality of communication
links **(items A, B, C, D, E, F, G of Fig 1)**, the method comprising, deactivating at least a
first communication link to provide a system having an open topology with no isolated
nodes, detecting effective loss of a communication link, and reactivating **(operating
mode)** said first communication link and further disclosed a method the step of
deactivating **(inactive)** is performed in response to detection of a closed loop topology
[Fig 1, col 3, lines 31-68,col 4, lines 65-68, col 5,lines 1-68, col 6, lines 1-41].

Regarding claim 16, Benedict et al. disclosed a method of reconfiguring a
communication system **(Fig 1)** comprising a plurality of nodes **(items 10,12,14,16,18,
20,22,24,26,28,30 of Fig 1)** coupled by a plurality of communication links **(items A, B,**

C, D, E, F, G of Fig 1) comprising, a state machine (status/vector, SOC table) in at

least one of said plurality of nodes configured to determine that said communication

system includes a closed loop topology in response to receipt of a communication (loop

detection message) at said one of said plurality of nodes, said state machine (status

maintained for each node) also configured to provide a control signal to at least

temporarily prevent effective communication across a selected one of said plurality of

communication links to change said closed loop topology to an open topology [Figs 2-3,

6-8, col 4, lines 66-68, cols 5-6, lines 1-68, col 7, lines 1-64].

Regarding claims 17,18, Benedict et al. disclosed that the state machine

(status/vector, SOC table) is further configured to designate one of said plurality of

nodes as a loop-breaking master (focal point node or server node) in response to

said step of determining, wherein said control signal or communication output

(message) by said loop-breaking master and state machine is further configured to

reestablish effective communication over said selected one of said plurality of

communication links in response to detection of a link loss [Figs 1-3,col 4, lines 44-65,

col 6, lines 7-41].

Regarding claims 20,21, Benedict et al. disclosed means for deactivating, means

for detecting and means for reactivating comprises (CP of Fig 2 and 3) at least a first

state machine (status, SOC table) coupled to at least a first of said plurality of nodes

and means for deactivating includes means for deactivating in response to detection of

a closed loop topology [Figs 2-3, col 4, lines 25-68, col 5-7, lines 1-68].

Conclusion

5.   Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached @ (571)-272-3139. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

6.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

05/12/06

RICKY Q. NGO
PATENT EXAMINER